

What is claimed is:

1. A method of driving a matrix type liquid crystal panel provided with a plurality of thin film transistors coupled to scanning wires and signal wires, and a plurality of liquid crystal cells, at intersecting points of the scanning wires and the signal wires, the method comprising steps of:

applying a scanning signal voltage to the scanning wire; and

supplying data signal voltages to the signal wires with a time corresponding to a predetermined interval.

2. A method of driving a matrix type liquid crystal panel provided with a plurality of thin film transistors coupled to scanning wires and signal wires, and a plurality of liquid crystal cells, at intersecting points of the scanning wires and the signal wires, the method comprising steps of:

applying a scanning signal voltage to the scanning wire;

supplying data signal voltages to the signal wires; and

delaying a data signal voltage supplied to the signal wire intersecting with the end of the scanning wire.

3. A method of driving a matrix type liquid crystal panel provided with a plurality of thin film transistors coupled to scanning wires and signal wires, and a plurality of liquid crystal cells, at intersecting points of the scanning wires and the signal wires, the method comprising steps of:

applying a scanning signal voltage to the scanning

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wire; and

supplying data signal voltages having a width enlarged in accordance with a position at the scanning wire to the signal wires.

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4. A method of driving a matrix type liquid crystal panel provided with a plurality of thin film transistors coupled to scanning wires and signal wires, and a plurality of liquid crystal cells, at intersecting points of the scanning wires and the signal wires, the method comprising steps of:

applying a scanning signal voltage pulse to the scanning wire;

supplying data signal voltages to the signal wires;  
15 and

allowing the data signal voltages to be supplied to the signal wires to have a different width in accordance with a position at the scanning wire.

20 5. A method of driving a matrix type liquid crystal panel provided with a plurality of thin film transistors coupled to scanning wires and signal wires, and a plurality of liquid crystal cells, at intersecting points of the scanning wires and the signal wires, the method comprising steps of:

25 applying data signal voltages to the signal wires;  
and

supplying a scanning signal voltage having a width enlarged in accordance with a position of the signal wire to the scanning wire.  
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6. A method of driving a matrix type liquid crystal panel provided with a plurality of thin film transistors

coupled to scanning wires and signal wires, and a plurality of liquid crystal cells, at intersecting points of the scanning wires and the signal wires, the method comprising steps of:

5 applying a scanning signal voltage having a width enlarged in accordance with a position at the signal wire to the scanning wire; and

supplying data signal voltages having a width enlarged in accordance with a position at the scanning wire to the signal wires.

7. An apparatus for driving a matrix type liquid crystal panel provided with a plurality of thin film transistors coupled to scanning wires and signal wires, and a plurality of liquid crystal cells, at intersecting points of the scanning wires and the signal wires, the apparatus comprising:

scanning side driving means for applying a scanning signal voltage to the scanning wire; and

20 signal side driving means for supplying data signal voltages to the signal wires with a time corresponding to a predetermined interval.

8. The apparatus as set forth in claim 7, wherein the signal side driving means comprises:

a plurality of signal wire driving cells for dividing the signal wires by a certain area and supplying data signal voltages to the divided areas; and

control means for driving the signal wire driving cells in such a manner that the signal wire driving cells supply sequentially the data signal voltages to the signal wires.

9. The apparatus as set forth in claim 8, wherein the control means includes a delay circuit for applying an output enable signal controlling output start points of the data signal voltages to the signal wire driving cells with a time corresponding to a predetermined interval.

10. An apparatus for driving a matrix type liquid crystal panel provided with a plurality of thin film transistors coupled to scanning wires and signal wires, and a plurality of liquid crystal cells, at intersecting points of the scanning wires and the signal wires, the apparatus comprising:

scanning side driving means for applying a scanning signal voltage to the scanning wire;

signal side driving means for supplying data signal voltages to the signal wires with a time corresponding to a predetermined interval; and

timing control means for delaying a data signal voltage supplied to the signal wire intersecting with the end of the scanning wire.

11. The apparatus as set forth in claim 10, wherein the signal side driving means includes a plurality of signal wire driving cells for dividing the signal wires by a certain area and supplying the data signal voltages to the divided areas.

12. The apparatus as set forth in claim 10, wherein the timing control means includes a delay circuit for applying an output enable signal controlling output start points of the data signal voltages to the signal wire driving cell positioned at the end of the scanning wire after a predetermined interval.

Sub B2  
13. ~~An apparatus for driving a matrix type liquid~~  
crystal panel provided with a plurality of thin film  
transistors coupled to scanning wires and signal wires,  
5 and a plurality of liquid crystal cells, at intersecting  
points of the scanning wires and the signal wires, the  
apparatus comprising:

scanning side driving means for applying a scanning  
signal voltage to the scanning wire;

10 signal side driving means for supplying data signal  
voltages to the signal wires; and

width control means for allowing the scanning signal  
voltage to have a different width in accordance with a  
position at the signal wire.

15 14. The apparatus as set forth in claim 13, wherein  
the signal side driving means includes a plurality of  
signal wire driving cells for dividing the signal wires by  
a certain area and supplying the data signal voltages to  
20 the divided areas.

15 15. The apparatus as set forth in claim 13, wherein  
the width control means applies an output enable signal to  
the scanning side driving means, the output enable signal  
25 having a width enlarged in accordance with proceeding from  
the start point to the end point of the signal wire.

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30 16. ~~An apparatus for driving a matrix type liquid~~  
crystal panel provided with a plurality of thin film  
transistors coupled to scanning wires and signal wires,  
and a plurality of liquid crystal cells, at intersecting  
points of the scanning wires and the signal wires, the  
apparatus comprising:

scanning side driving means for applying a scanning  
voltage to the scanning wire; and

signal side driving means for supplying data signal  
voltages having a width enlarged in accordance with a  
5 position on the scanning wire to the signal wires.

17. The apparatus as set forth in claim 16, wherein  
the signal side driving means comprises:

a plurality of signal wire driving cells for dividing  
10 the signal wires by a certain area and supplying data  
signal voltages to the divided areas; and

control means for driving the signal wire driving  
cells in such a manner that the width of the data signal  
voltage to be transmitted from each the signal wire  
15 driving cell to each the signal wire is gradually enlarged.

18. The driving apparatus as set forth in claim 16,  
wherein the control means includes a width expander for  
expanding the width of an output enable signal controlling  
20 output start points of each the signal wire driving cell  
by a predetermined interval.

19. An apparatus for driving a matrix type liquid  
crystal panel provided with a plurality of thin film  
25 transistors coupled to scanning wires and signal wires,  
and a plurality of liquid crystal cells, at intersecting  
points of the scanning wires and the signal wires, the  
apparatus comprising:

scanning side driving means for applying a scanning  
30 voltage to the scanning wire;

signal side driving means for supplying data signal  
voltages to the signal wires; and

~~width control means for making the data signal~~

voltages to be supplied to the signal wires have a different width in accordance with a position on the scanning wire.

5        20. The apparatus as set forth in claim 19, wherein said signal side driving means includes a plurality of signal wire driving cells for dividing the signal wires by a certain area and supplying the data signal voltages to the divided areas.

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21. The apparatus as set forth in claim 19, wherein the width control means includes a width expander for enlarging a width of an output enable signal controlling an output interval of the data signal voltage at each of  
15 the signal wire driving cells by a predetermined interval.

22. ~~A driving apparatus for a matrix type liquid crystal panel provided with a plurality of thin film transistors coupled to scanning wires and signal wires, and a plurality of liquid crystal cells, at intersecting points of the scanning wires and the signal wires, the apparatus comprising:~~  
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scanning side driving means for applying a scanning signal voltage having a width enlarged in accordance with a position of the signal wire to the scanning wire; and  
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signal side driving means for supplying a data signal voltage having a width enlarged in accordance with a position of the scanning wire to the signal wire.